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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,275	09/27/2001	Dennis Joseph Denen	LA-4747-124.US-01	5402

7590

04/14/2003

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EXAMINER

DOLE, TIMOTHY J

ART UNIT

PAPER NUMBER

2858

DATE MAILED: 04/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/966,275

Applicant(s)

DENEN ET AL.

Examiner

Timothy J. Dole

Art Unit

2858

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 11-16 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5 is/are allowed.
- 6) ☒ Claim(s) 6 and 7 is/are rejected.
- 7) ☒ Claim(s) 1-4 and 8-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5,6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1 - 10, drawn to a proximity detection circuit, classified in class 324, subclass 600+.
- II. Claims 11 -16, drawn to apparatus for dispensing paper from rolls, classified in class 242, subclass 559.2.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the detailed structures such as those recited in claim 1 are not required. The subcombination has separate utility such as for use in combination with other apparatus such as door opening mechanisms.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. John Carson and Examiner John Nguyen on 3/25/03, a provisional election was made without traverse to prosecute the invention of invention

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1, claims 1 - 10. Affirmation of this election must be made by Applicant in replying to this Office action. Claims 11 -16 are withdrawn from further consideration by the Examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Drawings

1. The drawings are objected to because reference numeral (98) in fig. 8A should read “RTRIM” not “RTRLN”. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: “nodule” should be “module” on page 9, paragraph [0053], line 13; “he” should be “the” on page 11, paragraph [0061], line 12; and “206” should be “208” on page 19, paragraph [0094], line 1.

Appropriate correction is required.

Claim Objections

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3. Claims 1-4 and 6-10 are objected to because of the following informalities: claim 1 recites the limitation "the exponential waveforms" on line 26; claim 6 recites the limitation "the resistance-capacitance time constant" on line 6; claim 7 recites the limitation "the flip-flop" on line 3; claim 8 recites the limitation "the exponential waveforms" on line 32; claim 9 recites the limitation "the second comparator" on lines 2-3; and claim 10 recites the limitation "the second comparator" on line 3. There is no antecedent basis for these limitations in the claims. Also, the word "a" should be removed from claim 9, line 3. Claims 2-4 are objected to since they depend on objected claim 1. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mull in view of Philipp.

Referring to claim 6, Mull discloses a method for detecting small capacitance changes comprising the steps of: detecting time of charge integration (fig. 6 (N)) for an antenna detector (fig. 1 (30)) with a larger dielectric constant; integrating a peak voltage (fig. 6 (Vc)) proportional to said integration time (fig. 6) wherein said charge integration time is inversely proportional to a resistance-capacitance time constant; and producing an output signal (fig. 5 (X)) from a peak voltage pulse integration. It should be noted that

(N) is the number of capacitance measuring sequences and is therefore directly related to time.

Mull does not disclose the output signal being adapted to activate a motor-controlling logic circuit.

Philipp discloses a capacitive sensor wherein an output signal is adapted to activate a motor-controlling logic circuit (column 10, lines 9-15 and column 13, lines 30-34).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate the motor-controlling logic circuit activation of Philipp into the method of Mull for the purpose of activating a system when certain conditions are met whereby increasing the effectiveness of the sensors (column 2, lines 39-46).

Referring to claim 7, Mull discloses the method as claimed except for the step of activating a motor switch when detecting a change in the output state of the logic circuit.

Philipp discloses the step of activating a motor switch when detecting a change in the output state of the logic circuit (column 10, lines 9-15 and column 13, lines 30-34).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate the motor switch activation of Philipp into the method of Mull for the same purpose as given in claim 6, above.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to show the state of the art with respect to proximity sensors.

USPN 5,670,886 to Wolff et al.: This patent shows a method and apparatus for proximity detection using an antenna and surrounding fields.

USPN 5,148,126 to Spencer: This patent shows a sensor for detecting small capacitance changes.

Allowable Subject Matter

7. Claim 5 is allowed.
8. Claims 1-4 and 8-10 would be allowable if rewritten or amended to overcome the objections set forth in this Office action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Dole whose telephone number is 703-305-7396. The examiner can normally be reached on Mon. thru Fri. from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, N. Le can be reached on 703-308-0750. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

TJD
April 8, 2003

TAS, PL


N. Le
Supervisory Patent Examiner
Technology Center 2800